

TECHNICAL SUPPORT DOCUMENT
Montana Initial Designations
2012 Revised Annual PM_{2.5} National Ambient Air Quality Standards

I. EXECUTIVE SUMMARY

On December 14, 2012, EPA revised the national ambient air quality standards (NAAQS) for Particulate Matter smaller than 2.5 microns (PM_{2.5}), revising the annual primary (health-based) standard from 15 micrograms per cubic meter (µg/m³) to 12 µg/m³ expressed as the 3-year average of the annual mean concentrations. The primary 24-hour PM_{2.5} NAAQS has been retained and not revised; therefore, Montana's initial statewide designations address only the revised annual PM_{2.5} NAAQS. The revision was published in the Federal Register (FR) on January 15, 2013 at 78 FR 3086.

According to 42 USC §7407, *et seq.*, Montana must submit to EPA an initial list of geographic areas that attain the standard or that do not attain the standard or that are otherwise unclassifiable based on available information. Montana hereby designates all areas (Counties) within the state as "attainment" or "unclassifiable" for the 2012 revised primary annual PM_{2.5} NAAQS. The following evaluation substantiates Montana's area designations.

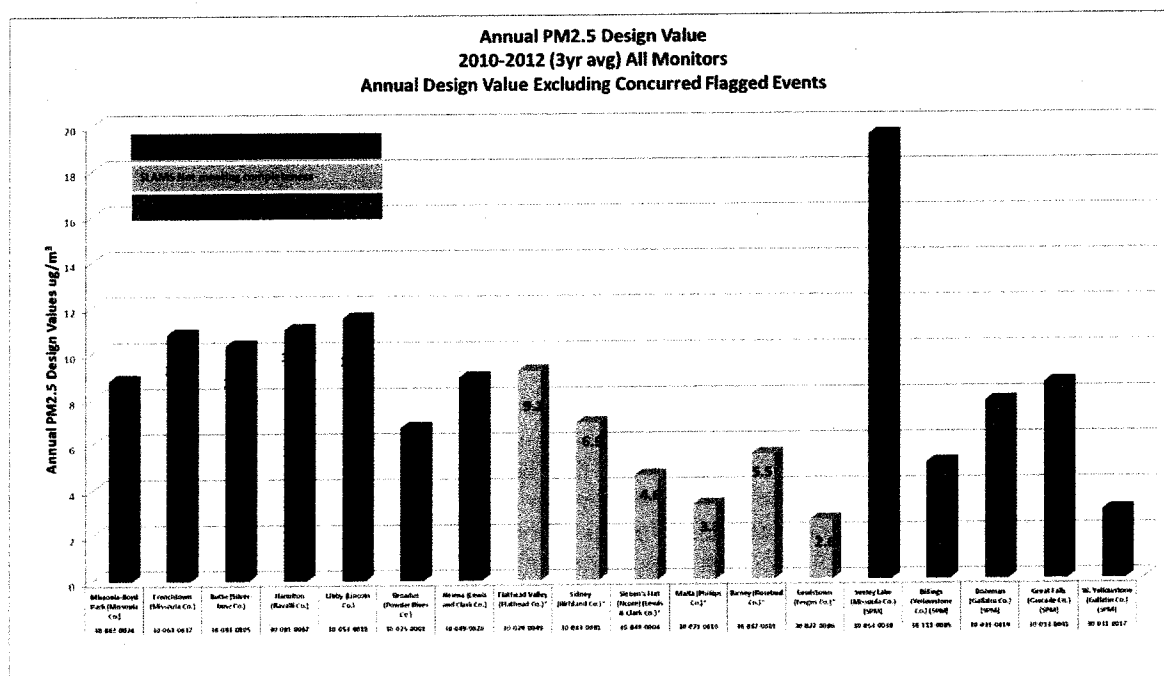
Designations for Counties

Based on available information, Montana determined that an initial designation of "attainment" is appropriate for 6 Montana counties with active PM_{2.5} State or Local Air Monitoring Stations (SLAMS) located within their respective boundaries for the design value period of 2010 through 2012. Available monitoring data collected at the SLAMS supports a conclusion that ambient concentrations of PM_{2.5} in those counties is in compliance and therefore attains the 2012 revised annual PM_{2.5} NAAQS.

Those counties to be designated "attainment" include: Silver-Bow, Missoula, Lewis and Clark, Lincoln, Powder River and Ravalli.

The remaining 50 counties in Montana should be designated as "attainment" or "unclassifiable" due to a lack of appropriate and/or adequate monitoring data to determine NAAQS compliance.

Figure 2, Annual PM_{2.5} 3-Year Average of Annual Mean at All Monitors



Based on the values represented in Figure 2 above, it should be noted that DEQ operates a non-FEM SPM at Seeley Lake Elementary School. This SPM was initially sited, installed and operated as part of Montana's "Today's Air" PM_{2.5} network which is designed to provide the citizens of Montana with near-real-time PM_{2.5} concentrations in geographically strategic locations state-wide. In response to the high PM_{2.5} values monitored at this SPM site the state of Montana, in cooperation with the Missoula City-County Health Department (MCCHD), conducted a wintertime study of the area using E-BAMs to determine the geographic extent of the problem. Based on the results of this study it has been determined that PM_{2.5} concentrations measured at the Seeley Lake Elementary School SPM site are representative of neighborhood scale impacts, and not the overall Seeley Lake airshed.

In response to this neighborhood scale issue, the MCCHD has initiated an episodic control program (PM_{2.5} Alerts) as well as a substantial and on-going subsidized process to replace aging and inefficient wood-burning devices in the Seeley Lake area. The effectiveness of this ongoing effort will continue to be monitored at the Seeley Lake Elementary School SPM site.

Figure 3 below removes all non-regulatory data obtained from SPMs and shows data from all SLAMS in the state. All data from SLAMS monitors shown in Figure 3 demonstrates compliance with the 2012 revised annual PM_{2.5} NAAQS. However, as discussed previously, several of Montana's SLAMS did not meet data completeness requirements for the design value period of 2010-2012. Due to a lack of data completeness for the design value period of 2010-2012, these SLAMS should not be used to designate the areas as attainment; however, they do support a designation of unclassifiable.